

REMARKS

This Response and Amendment is filed in response to the Office Action dated November 13, 2003.

Claims 1-17 are pending in the application. Claims 3, 6, and 13-17 have been withdrawn. By this Amendment, claims 1, 4, 5, and 7 are amended, leaving claims 2 and 8-12 unchanged. Claims 18-36 are also added by this Amendment. Applicants gratefully acknowledge the Examiner's indication that Claim 4 includes allowable subject matter. Claims 1, 2, 4, 5, 7-12, and 18-36 are presented for consideration by way of the present Response and Amendment.

On page 2 of the Office Action, Claims 1, 2, and 7-12 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 4,901,456 ("Cotutsca") in view of British Patent Application No. GB 074 770 ("Thompson"). Also, on page 3 of the Office Action, Claim 5 is rejected under 35 U.S.C. §103(a) as being unpatentable over Cotutsca and Thompson as applied to Claim 1, and further in view of U.S. Patent No. 6,279,254 ("Gill").

Claim 1 recites (underlining added for emphasis):

A display device, comprising:
a motor having a rotatable motor shaft;
a display object having a first end and a second end;
a tether, interconnected between said motor shaft and said second end, that is rotatable in response to the rotation of said motor shaft;
a first magnet interconnected with said first end; and
a second magnet, affixed to a support, that is disposed sufficiently close to said first magnet to create a magnetic field between said first magnet and said second magnet, whereby the rotation of said motor shaft rotates said tether and said display object about an axis of rotation while said magnetic field suspends the display object in a fluid.

Cotutsca does not teach, describe, or suggest a display device in which a display object is suspended in a fluid by a magnetic field between a first magnet interconnected with the display object and a second magnet affixed to a support, and in which the display object is rotated, while being suspended in the fluid, by a tether, which is interconnected to a motor shaft of a motor and responsive to rotation of the motor shaft. Rather, Cotutsca discloses a display 10 including an upper plate 11 and a lower plate 12 separated by posts 14, 15 to define a display area 13 therebetween. A holder 16 is provided in the display area 13 to hold articles, such as pictures. A filament 23 is connected at one end to the plate 12 and at its other end to the underside of a retainer 18 of the holder 16, while a combination of magnets 26, 30 between the upper plate 11 and the holder 16 suspend the holder in a magnetic field. Tape 32 secures an end of the filament 23 to the underside of the plate 12, while an additional piece of tape 32 secures an opposite end of the filament 23 to the underside of the retainer 18 to anchor the holder 16 to the plate 12 such that the filament 23 maintains the holder 16 within the magnetic field. Cotutsca fails to teach, describe, or suggest a motor for rotating the filament 23 and the holder 16 while the holder 16 is suspended within the magnetic field.

Cotutsca also fails to suggest the desirability of a motor for rotating the filament 23 and the holder 16 while the holder 16 is suspended within the magnetic field, as claimed in claim 1. In addition, it is not apparent how the display of Cotutsca could be modified to include a motor.

Thompson does not teach, describe, or suggest a display device in which a display object is suspended in a fluid by a magnetic field between a first magnet interconnected with the display object and a second magnet affixed to a support, and in which the display object is rotated, while being suspended in the fluid, by a tether, which is interconnected to a motor shaft of a motor and

responsive to rotation of the motor shaft. Rather, Thompson discloses a display including a motor 14 electrically connected to a solar cell 10 and a metal foil 24 coupled to a motor shaft 15, rotation of which imparts rotation to the metal foil 24. A sign member 16 is further coupled to the metal foil 24 such that some slippage occurs between the foil 24 and the sign member 16. The display is supported by two fluorescent bulbs F, which provide light energy to the solar cell 10, which, in turn, provides electrical energy to the motor 14. Clips 12 secure the display to the bulbs F such that the metal foil 24 and sign member 16 hang a distance from the bulbs F.

Thompson also fails to suggest the desirability for suspending the metal foil 24 and/or sign member 16 in a fluid by a magnetic field, as claimed in claim 1. Indeed, if the Thompson display was modified such that the metal foil 24 and/or sign member 16 are suspended in a fluid by a magnetic field as claimed in claim 1, the modified Thompson display would not be able to operate in the pre-described manner in which some slippage occurs between the foil 24 and the sign member 16 as a result of a slip-swivel connector 28, for example. A magnetic field acting on the sign member 16 may affect the slippage of the sign member 16 relative to the metal foil 24, thus negatively impacting the operation of the Thompson display.

Even if it were possible to modify the Thompson display such that the metal foil 24 and/or sign member 16 are suspended in a fluid by a magnetic field, the Thompson display would have to be significantly re-designed to operate in any manner similar to the display device claimed in claim 1, with no motivation regarding why such a re-design would be necessary or desirable. For these and other reasons, Thompson does not teach or suggest the subject matter defined by claim 1.

Therefore, neither Cotutsca nor Thompson, alone or in combination, teach or suggest the subject matter defined by claim 1. As such, the Applicants submit that claim 1 is allowable and respectfully request withdrawal of the 35 U.S.C. §103(a) rejection of claim 1. Claims 2 and 8-12 are ultimately dependent upon claim 1, and are therefore believed to be allowable for the same and other reasons and upon other features and elements claimed in claims 2 and 8-12 but not discussed herein.

As indicated by the Examiner on page 4 of the Office Action, claim 4 would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims. Accordingly, newly-independent claim 4 has been amended herein to include the limitations of claim 1.

Newly-added Claims 18-23 are ultimately dependent upon newly-independent claim 4, and are therefore believed to be allowable since claim 4 is allowable.

Claim 5 is hereby amended, and recites (amendment marks not shown; underlining added for emphasis):

A display device, comprising:

- a motor having a rotatable motor shaft;
- a display object having a first end and a second end;
- a tether, interconnected between said motor shaft and said second end, that is rotatable in response to the rotation of said motor shaft;
- a first magnet interconnected with said first end;
- a second magnet, affixed to a support, that is disposed sufficiently close to said first magnet to create a magnetic field between said first magnet and said second magnet, whereby the rotation of said motor shaft rotates said tether and said display object about an axis of rotation while said magnetic field suspends the display object in a fluid;
- and

a fan that causes air flow onto said display object.

Cotutsca, Thompson, Gill, nor their combination teach, describe, or suggest a display device in which a display object is suspended in a fluid by a magnetic field between a first magnet interconnected with the display object and a second magnet affixed to a support, and in which the display object is rotated, while being suspended in the fluid, by a tether, which is interconnected to a motor shaft of a motor and responsive to rotation of the motor shaft, and in which a fan causes an air flow onto the display object. Rather, Gill discloses an advertising device 1 which includes an advertising sock 25 that is maintained in an inflated state by a fan 3.

Rather than re-present the arguments set forth above with respect to this contention, for brevity's sake, the Applicants refer to the discussion above for claim 1. In addition, Cotutsca, Thompson, and Gill, alone or in combination, fail to suggest the desirability of a fan that causes an air flow onto the display object, as claimed in newly-independent claim 5. Further, it is not apparent how the display of Cotutsca would be modified to include a fan.

For these and other reasons, neither Cotutsca, Thompson, or Gill, alone or in combination, teach or suggest the subject matter defined by newly-independent claim 5. As such, the Applicants submit that newly-independent claim 5 is allowable and respectfully request withdrawal of the 35 U.S.C. §103(a) rejection of newly-independent claim 5.

Claim 7 is hereby amended, and recites (amendment marks not shown; underlining added for emphasis):

A display device, comprising:

a motor having a rotatable motor shaft;

a display object having a first end and a second end;

a tether, interconnected between said motor shaft and said second end, that is rotatable in response to the rotation of said motor shaft, wherein said tether comprises a fishing line;

a first magnet interconnected with said first end; and

a second magnet, affixed to a support, that is disposed sufficiently close to said first magnet to create a magnetic field between said first magnet and said second magnet, whereby the rotation of said motor shaft rotates said tether and said display object about an axis of rotation while said magnetic field suspends the display object in a fluid.

Cotutsca, Thompson, nor their combination teach, describe, or suggest a display device in which a display object is suspended in a fluid by a magnetic field between a first magnet interconnected with the display object and a second magnet affixed to a support, and in which the display object is rotated, while being suspended in the fluid, by a tether comprising a fishing line, which is interconnected to a motor shaft of a motor and responsive to rotation of the motor shaft. Rather, Cotutsca discloses a filament 23 anchoring the holder 16 to the lower plate 12, and Thompson discloses the foil 24 being connected to the motor shaft 15 by a ring 36 and tension clip 37, and the sign member 16 being connected to the foil 24 by a slip-swivel connector 28.

For these and other reasons, neither Cotutsca or Thompson, alone or in combination, teach or suggest the subject matter defined by newly-independent claim 7. As such, the Applicants submit that newly-independent claim 7 is allowable and respectfully request withdrawal of the 35 U.S.C. §103(a) rejection of newly-independent claim 7.

Newly-added claim 36 depends from claim 1, and recites:

The display device of claim 1, further comprising a base configured to house the motor, wherein the tether is passed through an aperture in the base.

Cotutsca does not teach, describe, or suggest a base configured to house the motor, wherein the tether is passed through an aperture in the base, as claimed in newly-added claim 36.

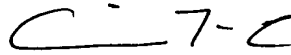
Rather, Cotutsca discloses a lower plate 12 with which to anchor the display 10 with the filament 23.

Indeed, if the display 10 of Cotutsca was modified to include a motor for rotating the holder 16 as claimed in newly-added claim 36, the motor would be required to be mounted to the top side of the plate 12, or in between the plate 12 and the holder 16, which would position the motor in the display area 13 along with the holder 16. Positioning the motor in the display area 13 would distract an observer from the visual impression of the suspended holder 16 and the articles within the holder 16 as employed by Cotutsca.

CONCLUSION

In view of the foregoing, entry of the present Amendment and allowance of Claims 1, 2, 4, 5, 7-12, and 18-36 is respectfully requested. The Applicants kindly request that the Examiner telephone the attorneys of record in the event a telephone discussion would be helpful in advancing the prosecution of the present application.

Respectfully submitted,



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